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BEFORE THE ARIZONA CORPORATION COMMISSION

COMMISSIONERS
MIKE GLEASON - CHAIRMAN
WILLIAM A. MUNDELL
JEFF HATCH-MILLER
KRISTIN K. MAYES
GARY PIERCE

IN THE MATTER OF THE PROPOSED RULEMAKING REGARDING NET METERING	DOCKET NO. RE-00000A-07-0608 **ELECTRIC COOPERATIVES' COMMENTS**

The following comments on the Proposed Rulemaking Regarding Net Metering ("Net Metering Rules") dated February 25, 2008 are being submitted by Duncan Valley Electric Cooperative, Inc. ("Duncan"), Graham County Electric Cooperative, Inc. ("Graham"), Mohave Electric Cooperative, Inc. ("Mohave"), Navopache Electric Cooperative, Inc. ("Navopache"), Trico Electric Cooperative, Inc. ("Trico") and Sulphur Springs Valley Electric Cooperative, Inc. ("Sulphur") (collectively the "Electric Cooperatives").

I. INTRODUCTION

Net metering creates a subsidy for customers who receive net metering. The cooperative and its members have incurred the cost of a transmission and distribution system to serve all member/customers. A customer that is net metered avoids paying the full cost of those facilities and yet receives a full retail rate for power generated by the customer. The other members will eventually be forced to pay higher rates to subsidize these costs that are not being paid by net

metered customers. In addition, as a result of the high cost of Distributed Generation ("DG") systems, affluent member/customers will be installing DG at the expense of less affluent member/customers.

For example, currently the Electric Cooperatives have monthly customer charges ranging from approximately $7.50 to $20.00. These monthly customer charges do not completely recover the fixed cost associated with the distribution and transmission plant dedicated to serving this customer. The Electric Cooperatives' current rate design collects a portion of the fixed costs associated with providing distribution and transmission service from the per kWh charge that on average is approximately $0.10 per kWh and will be avoided by net metered customers when their DG systems produce energy. By avoiding the Electric Cooperatives' kWh charge, a net metered customer is not paying their share of the fixed costs associated with the transmission and distribution system that has been built to provide electric service to a net metered customer.

In the Net Metering Rule R14-2-2307(B), Commission Staff has included a sentence at the end of this section that restricts capacity limits placed on a net metering tariff and states that ". . . such limits must be fully justified using appropriate loads and resources." This language excludes financial capacity limits that would cap the subsidy that is being created for net metered customers and would address the lack of cost recovery that is discussed above. For these reasons, the Electric Cooperatives would recommend that the last sentence in the Revised Net Metering Rule R14-2-2307(B) be removed.

Also for the reasons stated above, the Electric Cooperatives support those cost recovery provisions of the proposed Net Metering Rules dated December 17, 2007 in sections R14-2-

2304.C, 2304.F, 2305.A, 2305.B and 2305.C and also would recommend that these provisions be included in the Revised Net Metering Rules.

The Electric Cooperatives have comments regarding the Net Metering Rules in the following areas, as more specifically described herein:

A. The Electric Cooperatives have concerns about the language in R14-2-2302 M. regarding a generating capacity of less than or equal to 125 percent of the Net Metering Customers on-site total connected load and the problems associated defining and quantifying "total connected load" and with sizing of DG systems, payment for net energy provide to the utility, etc. that this language may cause. The Cooperatives are also very concerned about the language that has been added to this section that states, "or in the absence of customer load data capacity less than or equal to 100 kW".

B. Concerning R14-2-2302 D., the Electric Cooperatives are concerned the definition of Combined Heat and Power (CHP) in the revised Draft Rules will provide incentives for distributed generation from resources that are not qualified as renewable energy sources.

C Concerning R14-2-2306.F, the Electric Cooperatives are concerned about the time and expense associated with Net Metering customers who take service under Time of Use tariffs.

D. The Electric Cooperatives are concerned about that the provisions of proposed section R14-2-2308.B to report "monthly peak demand delivered to the Electric Utility".

R-14-2-2302 Definitions – D. Combined Heat and Power

The Electric Cooperatives are concerned that the definition of Combined Heat and Power (CHP) in the revised Draft Rules will provide incentives for distributed generation from resources that are not qualified as renewable energy sources. These grid-connected CHP generators could

prevent renewable energy resources from interconnection due to the necessary limitation on total distributed generation interconnection that is driven by reliability concerns. This effect would interfere with a utility's ability to meet its Renewable Energy Standard and Tariff (REST) annual distributed renewable energy requirements. The Electric Cooperatives propose language consistent with the intent of the REST Rules to restrict net metered CHP to sources using renewable resources. Also, given that the benefits of CHP in reducing societal consumption of fuels is derived from its ability to increase the efficiency of fuel utilization, the Electric Cooperatives propose that the PURPA efficiency and useful heat definitions of a Qualified Facility be applied to qualification for net metering service.

R-14-2-2302 Definitions - M. Net Metering Facility: Generating Capacity Less Than or Equal to 125% of Customer's Total Connected Load

The Revised Net Metering Rule R-14-2-2302 M.4 state that a customer with generating capacity less than or equal to the 125% of the customer's total connected load is eligible to receive net metering. Most of the Electric Cooperatives' customers do not have demand meters. Consequently, under the Revised Net Metering Rules, "total connected load" would need to be estimated. Estimating "total connected load" can be an involved and difficult process with many variables. For these reasons, the Electric Cooperatives recommend that the language "total connected load be removed from this section and the language "peak demand" be inserted.

The Electric Cooperatives have also previously stated in their comments that net metering systems should be sized to meet the customer's load and that customers should not be incented to over-size their distributed generation ("DG") system such that on a regular, net basis they are able to provide electricity to the utility. A net metering rule that would allow net metered customers to

oversize their systems by up to 25% appears to incent customers to install more DG equipment so that net metered customers could regularly sell energy to a utility. In addition, the Electric Cooperatives are already required to maintain reserve margins for all customers in order to maintain system reliability. To require utilities and their consumers to buy power from net metered customers on a regular basis that is due to the additional 25% is unfair to non-net metered customers and duplicative.

The Electric Cooperatives also have concerns about the potential need to upgrade their distribution systems to meet the net metered customer's 125 percent of total connected load. Since most electric utilities including the Electric Cooperatives design/size their distribution systems based on 100 percent of the customers total connected load, during low load periods a net metered customer's generation output could produce flow back into the distribution system at a level greater than 100 percent of its total connected load. To remain consistent with current design practice for the distribution system, it is important to limit the customer's generation to no more than 100 percent. This would allow sizing of the local distribution system in a consistent manner regardless of whether or not there is currently, or may be in the future, customers with generating facilities. This will also eliminate the need for additional distribution plant investment to meet the 125 percent of the total connected load.

Finally, as noted in the Net Metering Staff Report dated December 17, 2007, many types of distributed generation are not dispatchable and there will be a need for total distributed generation limits to maintain system reliability. The limit can be reached through a small number of large systems or a large number of small systems. The Staff Report accompanying the original proposed Draft Rules, notes on page 2 that customers will use Net Metering for "... essentially storing excess

power on the grid…". This is a new role for electric utilities, one for which their assets are generally not appropriately suited. Eventually, as self-generation capacity reaches some future threshold yet to be determined, utilities will need to install energy storage assets, at some cost, to manage the energy storage demands imposed by customers. For the reasons stated above and to more closely align distribution system sizing with distributed generation sizing, the Electric Cooperatives would request that the percentage stated in Net Metering Rule R-14-2-2302 M.4 and R-14-2-2303 B. be changed from 125% to 100%.

The Cooperatives are also very concerned about the language that has been added to this section that states, "or in the absence of customer load data capacity less than or equal to 100 kW" and believe this language should be removed. The Electric Cooperatives believe this 100 kW limit is extreme and bears very little relationship to the actual size of a customer's service. This language could potentially allow a residential or small commercial customer with a 10kW to 20 kW service capacity to install a 100 kW gas fired unit at their premise and expect the electric utility to net meter the facility and upgrade its distribution system that is designed to handle a 10 kW to 20kW load, to accept the electricity from this 100 kW net metered facility. An upgrade of the distribution system of this magnitude would require a costly redesign and is completely contrary to the net metering goal of sizing a customer's net metering facility to meet the customer's load. In order to match the customer's Net Metering Facility capacity with the utility distribution system size, the Electric Cooperatives recommend that the following language be inserted at the end of R-14-2-2302 M.4, "in the absence of customer load data, the maximum net metering facility capacity would be equal to the customer's electric service drop capacity."

Section R14-2-2304 – Metering

The Commission should allow the utilities the option to install a second meter and double meter base to register the Net Metered customers' DG system output if the utility's Automated Meter Reading ("AMR") Equipment is not compatible with a bi-directional meter. For this reason the Electric Cooperatives request the sentence "An Electric Utility may also use and include the cost of another meter and double meter base if the utility's Automated Meter Reading ("AMR") Equipment is not compatible with a bi-directional meter." be added to the end of this section.

Section R14-2-2306.E - Billing for Net Metering

While Time of Use (TOU) Net Metering can technically be implemented, the cost to the customer could be very expensive using existing available technology. As smart metering systems are implemented service territory wide, the cost of TOU Net Metering equipment and monthly reading may decline. No language changes are suggested at this time, but the proposed Net Metering tariffs will reflect technology for TOU Net Metering at the time the tariffs are presented. In addition, the implementation of TOU Net Metering in customer billing systems, while again are technically possible, will involve significant expense as those information processing systems will need to be programmed to support a billing concept they were not designed to calculate. The question of excess credit carryover of TOU summer credits into winter and vice versa with dissimilar values will need to be addressed in the Net Metering tariffs. The Electric Cooperative's do not support participation in a TOU program for Net Metering customers, due to the concerns above and that the costs for such customers would not properly be recovered in the TOU rates. Should the Commission require offering of a TOU program to Net Metering customers, Net Metering customer's will need a separate TOU rate class to appropriately reflect the Net Metering customer's costs and service.

Section R14-2-2308.B – Filing and Reporting Requirements

The Electric Cooperatives recommend the removal of the language "monthly peak demand delivered to the Electric utility and the" in the first line of this section. Bi-directional demand recording meters are much more costly than a standard energy only recording bi-directional meter. Demand meters also commonly require a manual reset after reading, which will result in additional expenses to be charged to the Net Metering customer. The Staff Report does not mention demand recording, nor does section R14-2-2304 – Metering reference any demand registers for the Net Metering meters. Given that the nameplate generation capacity of the Net Metering Facility will be reported, sufficient information would be available to determine connected distributed generation capacity. Recording of coincident demand information and time stamped demand data for multiple high demand periods in a month does not assist in determining the value of distributed generation to a utility. To implement monthly peak demand reporting at this time will result in a high cost of entry to potential Net Metering customers and a high cost of administration in developing the reports, with only a small benefit to anyone beyond that provided by the nameplate generation capacity data reported in section R14-2-2308.A.

RESPECTFULLY SUBMITTED this 6th day of March, 2008.

By: _____

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Original and thirteen copies of the foregoing filed this 6th day of March, 2008, with:

Docket Control
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Attachment A

ATTACHMENT
Proposed Net Metering Rules

ARTICLE 23. NET METERING

R14-2-2301.	Applicability
Rl4-2-2302.	Definitions
Rl4-2-2303.	Requirements and Eligibility
R14-2-2304.	Metering
R14-2-2305.	New or Additional Charges
R14-2-2306.	Billing for Net Metering
R14-2-2307.	Net Metering Tariff
R14-2-2308.	Filing and Reporting Requirements

Attachment A

TITLE 14. PUBLIC SERVICE CORPORATIONS; CORPORATIONS AND ASSOCIATIONS; SECURITIES REGULATION

CHAPTER 2. CORPORATION COMMISSION – FIXED UTILITIES

ARTICLE 23. NET METERING

R14-2-2301. Applicability

These Rules govern the treatment of Electric Utility Customers in Arizona who wish to interconnect with the Electric Utility which serves them and engage in Net Metering operation as defined below. These Rules apply to all Electric Utilities, as defined in these Rules.

R14-2-2302. Definitions

For purposes of this Article, the following definitions apply unless the context requires otherwise:

A. "Avoided Costs" means the incremental costs to an Electric Utility for electric energy or capacity or both which, but for the purchase from the net metering facility, such utility would generate itself or purchase from another source.

B. "Biomass" means any raw or processed plant-derived organic matter available on a renewable basis, including dedicated energy crops and trees; agricultural food and feed crops; agricultural crop wastes and residues; wood wastes and residues, including landscape waste, right of way tree trimmings, or small diameter forest thinnings that are 12" in diameter or less; dead and downed forest products; aquatic plants; animal wastes; other vegetative waste materials; non-hazardous plant matter waste material that is segregated from other waste; forest related resources such as harvesting and mill residue, pre-commercial thinnings, slash and brush; miscellaneous waste, such as waste pellets, crates and dunnage; or recycled paper fibers that are no longer suitable for recycled paper production, but not including painted, treated or pressurized wood, wood contaminated with plastics or metals, tires or recyclable post-consumer waste paper.

C. "Biogas" means gases that are derived from plant-derived organic matter, agricultural food and feed matter, wood wastes, aquatic plants, animal wastes, vegetative wastes or waste water treatment facilities using anaerobic digestion or from municipal solid waste through a digester process, an oxidation process or other gasification process.

D. "Combined Heat and Power" or "CHP" (also known as cogeneration) means a system that is fueled by Renewable Resources and generates electricity and useful thermal energy in a single, integrated system. Qualifying CHP systems shall meet all PURPA efficiency and effective utilization of heat production standards for a Qualifying Facility (QF) certification.

E. "Commission" means the Arizona Corporation Commission.

F. "Electric Utility" or "Utility" means an electric distribution company that constructs, operates, and maintains the electrical distribution system for the receipt and/or delivery of power.

G. "Electric Utility Customer" or "Customer" means an end-use retail Customer served under a Utility's rate schedule.

H. "Fuel Cell" means a device that converts the chemical energy of a fuel directly into electricity without intermediate combustion or thermal cycles. For purposes of these Net Metering rules, the source of the chemical reaction must be derived from Renewable Resources.

I. "Geothermal" means heat from within the earth's surface.

J. "Hydroelectric" means the kinetic energy derived from moving water.

K. "Net Metering" means service to an Electric Utility Customer under which electric energy generated by or on behalf of that Electric Utility Customer from a Net Metering Facility and delivered to the Utility's local distribution facilities may be used to offset electric energy provided by the Electric Utility to the

Electric Utility Customer during the applicable billing period.

L. "Net Metering Customer" means any Arizona Customer who chooses to take electric service in the manner described in the definition of Net Metering above, and under the Net Metering tariff, as described in R14-2-2307.

M. "Net Metering Facility" means a facility for the production of electricity that:

1. Is operated by or on behalf of a Net Metering Customer and is located on the Net Metering Customer's premises.
2. Is intended primarily to provide part or all of the Net Metering Customer's requirements for electricity;
3. Uses Renewable Resources, a Fuel Cell, or CHP to generate electricity;
4. Has a generating capacity less than or equal to 100~~125~~% of the Net Metering Customer's peak demand~~total connected load~~, or in the absence of customer load data, a capacity less than or equal to the Customer's electric service drop capacity~~100 kW~~; and
5. Is interconnected with and can operate in parallel and in phase with an Electric Utility's existing distribution system.

N. "Renewable Resources" means natural resources that can be replenished rapidly by natural processes. Renewable Resources include Biogas, Biomass, Geothermal, Hydroelectric, Solar, or Wind.

O. "Solar" means solar radiation of the Earth's Sun that produces electricity from a device or system designed for that purpose..

P. "Wind" means energy derived from wind movement across the Earth's surface that produces electricity from a device or system designed for that purpose.

R14-2-2303. Requirements and Eligibility

A. An Electric Utility shall interconnect with any retail Customer who operates a Net_Metering Facility in the Electric Utility's service territory.

B. Facilities with a generating capability greater than 100~~125~~% of the customer's peak demand shall require a special contract between the Utility and the Customer.

RI4-2-2304. Metering

If the meter that is currently installed on the Net Metering Facility is incapable of registering and accumulating the kilowatt-hours ("kWh") of electricity flowing in both directions in each billing period, a bi-directional meter with that capability shall be installed by the Electric Utility to record the kWh of electricity in both directions. An Electric Utility may also use and include the cost of another meter and double meter base if the utility's Automated Meter Reading ("AMR") Equipment is not compatible with a bi-directional meter.

RI4-2-2305. New or Additional Charges

A. Any proposed charge that would increase a Net Metering Customer's costs beyond those of other customers in the same rate class shall be filed by the Electric Utility with the Commission for approval. The filings shall be supported with cost of service studies and benefit/cost analyses.

B. Net Metering costs shall be assessed on a nondiscriminatory basis with respect to other customers with similar load characteristics.

R14-2-2306. Billing for Net Metering

A. On a monthly basis, the Net Metering Customer shall be billed or credited based upon the rates applicable under the Customer's currently effective standard rate schedule and any appropriate rider schedules.

B. The billing period for net metering will be the same as the billing period under the Customer's applicable standard rate schedule.

C. If the kWh supplied by the Electric Utility exceed the kWh that are generated by the Net Metering Facility and delivered back to the Electric Utility during the Billing Period, the Customer shall be billed for the net kWh supplied by the Electric Utility in accordance with the rates and charges under the Customer's standard rate schedule.

D. If the electricity generated by the Net Metering Customer exceeds the electricity supplied by the Electric Utility in the Billing Period, the Customer shall be credited during the next Billing Period for the excess kWh generated. That is, the excess kWh during the Billing Period will be used to reduce the kWh supplied (not kW or kVA demand or customer charges) and billed by the Electric Utility during the following Billing Period.

F. Customers taking service under time-of-use rates who are to receive credit in a subsequent Billing Period for excess kWh generated shall receive such credit during the next Billing Period during the on- or off-peak periods corresponding to the on- or off-peak periods in which the kWh were generated by the Customer.

G. Once each calendar year the Electric Utility shall issue a check or billing credit to the Net Metering Customer for the balance of any credit due in excess of amounts owed by the Customer to the Electric Utility. The payment for any remaining credits shall be at the Electric Utility's Avoided Cost. That Avoided Cost shall be clearly identified in the Electric Utility's Net Metering tariff

R14-2-2307. Net Metering Tariff

A. Each Electric Utility shall file, for approval by the Commission, a Net Metering tariff within 120 days from the effective date of these rules, including financial information and supporting data sufficient to allow the Commission to determine the Electric Utility's fair value for the purposes of evaluating any specific proposed charges. The Commission shall issue a decision on these filings within 120 days.

B. The Net Metering tariff shall specify standard rates for annual purchases of remaining credits from Net Metering facilities and may specify ~~total~~ capacity limits. ~~If capacity limits are included in the Tariff, such limits must be fully justified using appropriate loads and resources data.~~

C. Electric utilities may include seasonally and time of day differentiated avoided cost rates for purchases from Net Metering Customers, to the extent that Avoided Costs vary by season and time of day.

R14-2-2308. Filing and Reporting Requirements

A. Prior to May 1 of each year, each Electric Utility shall file a report listing all existing Net Metering Facilities and the inverter power rating or generator rating as of the end of the previous calendar year.

B. Also included in this report shall be, for each existing Net Metering Facility, ~~the monthly peak demand delivered to and from the Electric Utility and~~ the monthly amount of energy delivered to and from the Utility.